#### **Proposed Item for Biobased Designation**

The following biobased product information has been collected to support item designation by USDA for the Federal Biobased Product Preferred Procurement Program (FB4P). This summary reflects data available as of July 26, 2006.

**Title: Carpet Cleaners** 

**Description:** Substances used to clean carpets, through a dry or wet process, in houses, cars, workplaces, etc.

**Manufacturers Identified:** 13 manufacturers producing Carpet Cleaners have been identified through internet searches, manufacturer's directories, trade associations, and company submissions.

**Industry Associations Investigated:** The following industry associations have been investigated for member companies producing Carpet Cleaners:

- Professional Carpet & Upholstery Cleaners Association
- Institute of Inspection, Cleaning, and Restoration Certification
- Biobased Manufacturers Association
- United Soybean Board

**Commercially Available Products Identified:** Of the manufacturers identified, 17 Carpet Cleaners are commercially available on the market.

**Product Information Collected:** Specific product information including company contact, intended use, biobased content, and performance characteristics have been collected on 5 Carpet Cleaners.

**Industry Performance Standards:** Product information submitted by biobased manufacturers indicate that have typically been tested to the following industry standards:

• U.S. Navy #Navsea 6840 Surface Ship (Non-Submarine) Authorized Chemical Cleaning Products and Dispensing Systems

**Samples Tested for Biobased Content:** 10 samples of Carpet Cleaners have been submitted to independent laboratories for biobased content testing as specified by ASTM standard D6866-04.

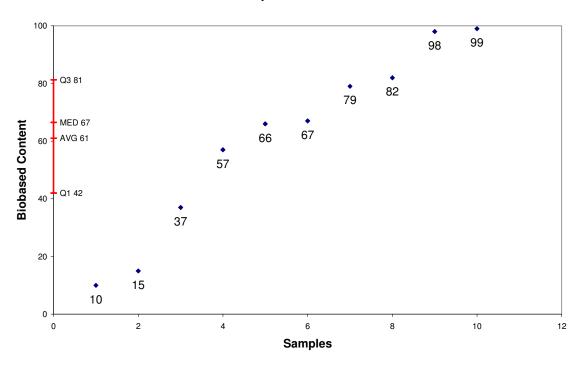
**Biobased Content Data:** Results from biobased content testing of Carpet Cleaners indicate a range of content percentages from 10% minimum to 99% maximum biobased content as defined by ASTM D 6866-04. A detailed distribution of biobased content levels is included as Appendix A

**Products Submitted for BEES Analysis:** Life-cycle cost and environmental effect data for 2 Carpet Cleaners have been submitted to NIST for BEES analysis.

**BEES Analysis:** The life-cycle costs of the submitted Carpet Cleaners range from \$4.55 minimum to \$20.29 maximum per usage unit. The environmental scores range from 0.0898 minimum to 0.1542 maximum. A detailed summary of the BEES results is included as Appendix B.

# Appendix A - Biobased Content Data

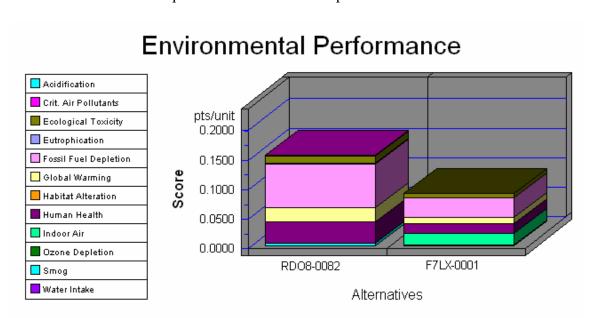
### **Carpet Cleaners**



	Manufacturers Identified	Products Identified	C14	BEES
1	YJ3R	YJ3R-0004	10	
2	C9PX	C9PX-0017	15	
3	YJ3R	YJ3R-0010	37	
4	K4U8	K4U8-0005	57	
5	RDO8	RDO8-0082	66	yes
6	RDO8	RDO8-0013	67	
7	ULHI	ULHI-0007	79	
8	VWD1	VWD1-0005	82	
9	F7LX	F7LX-0001	98	yes
10	U4WQ	U4WQ-0004	99	

## Appendix B - BEES Analysis Results

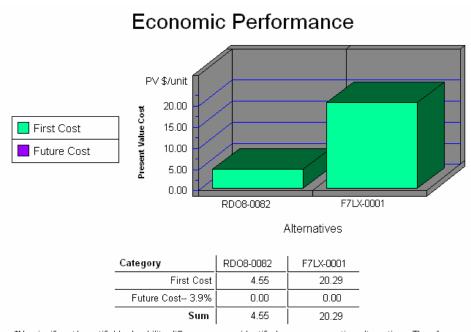
Functional Unit: 1000 Square Feet of Cleaned Carpet



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Note:	ower	values	are	hetter

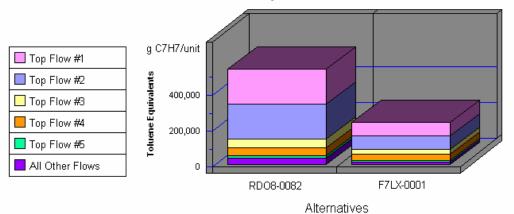
Category	RD08-0082	F7LX-0001
Acidification5%	0.0000	0.0000
Crit. Air Pollutants6%	0.0015	0.0007
Ecolog. Toxicity11%	0.0124	0.0069
Eutrophication5%	0.0016	0.0007
Fossil Fuel Depl5%	0.0733	0.0330
Global Warming16%	0.0233	0.0101
Habitat Alteration16%	0.0000	0.0000
Human Health11%	0.0370	0.0164
Indoor Air11%	0.0000	0.0196
Ozone Depletion5%	0.0000	0.0000
Smog6%	0.0049	0.0024
Water Intake3%	0.0002	0.0000
Sum	0.1542	0.0898

#### Appendix B (continued)



<sup>\*</sup>No significant/quantifiable durability differences were identified among competing alternatives. Therefore, future costs were not calculated.

# Human Health by Sorted Flows\*



Note: Lower values are better

Category	RDO8-0082	F7LX-0001
Cancer(a) Dioxins (unspecifie	197,590.13	77,351.18
Cancer(a) Arsenic (As)	192,358.95	74,845.12
Cancer(w) Arsenic (As3+, As5+	49,566.08	24,783.04
Cancer(w) Phenol (C6H5OH)	43,537.74	35,840.46
Noncancer(a) Mercury (Hg)	12,400.32	6,777.82
All Others	38,441.13	17,535.03
Sum	533,894.36	237,132.64

<sup>\*</sup>Sorted by five topmost flows for worst-scoring product